

L 7734-66 EWT(1)/ETC/EPF(n)-2/ENG(m)/EPA(w)-2/EWA(m) SOURCE CODE: UR/0057/05/035/010/1907/1909  
ACC NR: AP5025909

AUTHOR: Kagan, Yu.M.; Milenin, V.M.

ORG: Leningrad State University im. A.A. Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: On the radial dependence of the electron velocity distribution in the positive column of a discharge

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 10, 1963, 1907-1909

TOPIC TAGS: gas discharge plasma, positive column, helium, neon, electron distribution, Maxwell distribution, distribution function

ABSTRACT: The electron velocity distribution functions were measured on and off the axes of the 2.5 cm diameter positive columns of 150 to 500 mA discharges in Ne at 0.25 to 1.5 mm Hg and 100 mA discharges in He at 0.2 to 1.2 mm Hg. Four 6 mm long 0.06 mm diameter probes were employed, two being mounted 50 mm apart on the axis of the column and two at corresponding positions 9 mm off the axis. The longitudinal electric field strength measured with these probes was the same on and off the axis. The electron velocity distributions on and off the axis were derived from the second derivatives of the corresponding probe characteristics. At the lowest pressures the distributions were nearly Maxwellian and were the same on and off the axis. At higher pressures there were relatively more low energy electrons and fewer high energy electrons off

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the axis. The difference between the on and off axis distribution functions increased with increasing pressure. Measurements could not be obtained at higher pressures because of increasing noise. The difference between the average electron energy on and off the axis was not great and almost did not exceed the experimental error. The observed difference between the electron distributions on and off the axis is in agreement with a theory previously proposed by Yu.M.Kagan and R.I.Lvagushchenko (ZhTF, XXXIV, 821, 1873, 1964). Orig. art. has: 1 formula and 2 figures. 44455

SUB CODE: ME/ SUBM DATE: 08Apr65/ ORIG REF: 003/ OTH REF: 000

Card

2/2

L 10671-66 EWT(1)/EPF(n)-2/EWA(m)-2 LJP(c) KW/AT	
ACC NR: AP5028323	SOURCE CODE: UR/0057/65/035/011/2039/2075
44, 55 44, 55	
AUTHOR: <u>Kagan, Yu. M.</u> ; <u>Perel', V. I.</u>	
44, 55	
ORG: <u>Leningrad State University im. A.A. Zhdanov</u> (Leningradskiy gosudarstvennyy universitet)	
TITLE: on the theory of a spherical probe at medium and high pressure	
SOURCE: <u>Zhurnal tekhnicheskoy fiziki</u> , v. 35, no. 11, 1954, 2083-2075	
TOPIC TAGS: plasma diagnostics, plasma probe, <u>pressure effect</u> , electron temperature, spheric geometry	
21. 94, 55	
ABSTRACT: The <u>electron current</u> to a spherical probe at a negative potential is calculated directly from the kinetic equation by methods previously employed by the authors (ZhTF 24, 889, 1954) to calculate the electron current to a spherical probe held at the space potential. The result reduces to the usual formula when the pressure is low, but the kinetic treatment is necessary at high pressures because the diffusion equations are invalid, owing to the low energy transfer in collisions between electrons and atoms. To facilitate the approximate solution of the kinetic equation, the distribution function is expressed as the sum of two terms representing electrons moving in different directions. This procedure is shown to give the correct result in the limiting case of low pressures and to provide a very good approximation in the limiting case of high pressures; it is assumed, therefore, that	
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ACC NR: AP5028323

the procedure will give a good approximation also at intermediate pressures. It is found that the electron current to the probe increases less rapidly than exponentially as the probe potential approaches the space potential and that the deviation from exponential rise is the greater, the higher the pressure. The usual method of determining the electron temperature from the slope of the upper part of the logarithmic probe characteristic, therefore, overestimates the temperature. The expression derived for the probe current can be evaluated only when the velocity dependence of the electron mean free path is known. Probe characteristics were calculated with the assumption that the electron mean free path is proportional to  $v^s$  ( $v$  is the electron velocity) for four different values of the constant  $s$  between 1 and -2, and the characteristics are presented graphically. When the electron temperature is determined from the derivative of the probe characteristic in the manner proposed by Yu.M.Kagan, V.I.Perel', and P.O.Pipatti (Vestnik LGU, No.8,129,1955), the relative error is  $(s+2)kT_e/2eV$  at high pressures, where  $k$  is Boltzmann's constant,  $T_e$  is the electron temperature,  $e$  is the electron charge, and  $V$  is the probe potential. At lower pressures the error is smaller. Orig. art. has: 31 formulas and 1 figure

SUB CODE: 20 SUBM DATE: 13Apr65/

ORIG. REF: 006 CTR RHF:004

Card 2/2

ACC NR: AP 5001326

SOURCE CODE: UR/0057/66/036/012/2219/2220

AUTHOR: Kagan, Yu.M.; Milenin, V.M.; Mitrofanov, N.K.

ORG: Leningrad State University im. A.A.Zhdanov (Leningradskiy gosudarstvennyy universitet)

TITLE: On the energy distribution of electrons in the positive column of an argon discharge

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 12, 1966, 2219-2220

TCPIC TAGS: gas discharge plasma, positive column, argon, electron distribution, Maxwell distribution

ABSTRACT: In a paper shortly to appear in the Zhurnal tekhnicheskoy fiziki, the authors describe a technique for measuring the energy distribution of electrons in plasmas in the presence of a large noise background. In the present letter to the editor they present electron distributions recorded with this technique in the positive column of an argon discharge in a 2.3 cm diameter tube at pressures from 0.03 to 4.5 mm Hg and currents from 100 to 300 mA. At low pressures the electron distributions were Maxwellian. At higher pressures there were more low energy and fewer high energy electrons than in the corresponding Maxwell distribution. At 3 and 4.5 mm

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1 21759-66 EMT(1)/EMT(m)/ETC(f)/EPF(n)=2/EMG(m),T/ [REDACTED] AT/DS  
ACC NR: AP6004896 SOURCE CODE: UU/0057/66/036/001/0181/0185

AUTHOR: Borodin, V.S.; Kagan, Yu.M.

ORG: Leningrad State University im. A.A.Zhdanov (Leningradskiy gosuniversitet)

TITLE: Investigation of the discharge in a hollow cathode. 1. Comparison of the electrical characteristics of a hollow cathode and a positive column

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 1, 1966, 181-185

TOPIC TAGS: gas discharge, helium, positive column, hollow cathode, electron distribution, velocity distribution, Maxwell distribution, electrode, electron energy

ABSTRACT: The authors have measured the electron density and velocity distribution in helium discharge positive columns and in hollow cathode helium discharges, using the technique previously employed by N.A.Vorob'yeva, Yu.M.Kagan, R.I.Lyagushchenko, and V.M.Milennin (ZhTF, 34, 146, 1964) to measure electron velocity distributions in positive columns. Two hollow cathodes with diameters of 2 and 1 cm and lengths of 5 and 10 cm, respectively, were investigated. The electron density and velocity distribution at the center of the hollow cathode and on the axis of a positive column of equal diameter were derived from the probe characteristics of 0.05 mm diameter 5 mm long cylindrical probes. Measurements were made at helium pressures from 0.9 to 3.5 mm Hg and discharge currents from 20 to 40 mA. Deviations from the Maxwellian distribution were

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ACC NR: AP6004896

observed at the higher pressures; in the hollow cathode there was an excess of high energy electrons, and in the positive column there was a deficiency of high energy electrons. The number of high energy electrons in the hollow cathode was maximum at a certain optimum pressure that was higher for the smaller cathode than for the larger one. The ratio of the number of electrons with energies from 6 to 13 eV to the number with energies from 19 to 26 eV was nearly independent of pressure for the hollow cathode and was small and exhibited a minimum as a function of pressure for the positive column. The significance of these results for the interpretation of the spectra of the discharges is discussed briefly. Orig. art. has: 3 formulas, 9 figures, and 1 table.

SUB CODE: 20/ SUBM DATE: 14May65/ ORIG REF: 004/ OTH REF: 000

Card 2/2

L 31503-66 EWT(1)/ETC(f) IJP(c) AT  
ACC NR: AP601301B SOURCE CODE: UR/0051/65/020/004/0561/0567

AUTHOR: Golubovskiy, Yu. B.; Kagan, Yu. M.; Lyagushchenko, R. I.

68  
5

ORG: none

TITLE: Spectroscopic and probe investigation of a pinched discharge column. I.

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 561-567

TOPIC TAGS: plasma ~~pinch~~, positive column, discharge plasma, electron density, electron temperature, neon, argon

ABSTRACT: For the purpose of checking on the theory proposed by the authors to explain the contraction of the positive column of a discharge, wherein the glowing region does not fill the entire volume of the tube but is concentrated about the axis (ZhTF v. 34, 1873, 1964), the authors have measured the electron density distribution over the cross section of a discharge tube, the electron temperatures, the longitudinal fields, and the currents to the wall, in the case of discharges in neon and argon under different conditions. In the case of neon the pressures ranged from 1 to 30 mm Hg and the current from 50 to 400 ma. In argon the corresponding figures were 0.5 - 10 mm Hg and 25 - 400 ma. The electron density  $n_e$ , the electron temperature  $T_e$ , and the longitudinal field intensity  $E$  were measured by

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Card 2/2

L 02281-67 EWT(l)/I IJP(c) AT  
ACC NR: AP6025243

SOURCE CODE: UR/0057/66/036/007/1198/1201

AUTHOR: Borodin, V. S.; Kagan, Yu. M.; Lyagushchenko, R. I.

ORG: none

TITLE: Investigation of a hollow cathode discharge. 2.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 7, 1198-1201

TOPIC TAGS: gas discharge, hollow cathode, electric field, electron energy, electron distribution

ABSTRACT: This paper is a sequel to an earlier paper by V. S. Borodin and Yu. M. Kagan (ZhTF, 36, 181, 1966) in which the experimental techniques were described and the earlier results presented. The previous work showed that the electron energy distribution in a hollow cathode differs from that in a positive column in that its maximum occurs at a lower electron energy and it falls off less rapidly with increasing energy. Probe measurements in a 10 cm long 2 cm diameter hollow cathode have now shown, in agreement with the findings of E. Badareu and I. Popescu (Phys. Rev., 5, No. 1, 1960). Abstracter's note: the reference appears to be to Rev. de Physique, Bucharest, that the electric field within a hollow cathode is very weak. Measurements of the electron energy distribution within the hollow cathode were extended beyond the previous upper limit of 40 eV to some hundreds of eV with the aid of a two-grid electrostatic analyzer.

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L 02281-67

ACC NR: AP6025243

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It was found that the distribution of electron energy close to the energy of the cathode drop (several hundred eV in the present experiments) is a sharp maximum as in part I, but the windows on the ends. The radial intensity distribution was investigated in neon in the lines 6929, 6506, 5764, and 5330 Å, and in argon in the lines 7503, 4300, 4259, 6871, 5888, and 5187 Å. The line intensity was corrected for reabsorption in the usual manner. The experiment has shown that the radial dependence of the different line intensities agreed within the limits of errors.

SUB CODE: 20

SUBM DATE: 03Jul65

ORIG. REF: 002 OTH REF: 002

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that there were no probes and there were two flat

ACC NR: AF/000022

resulted in contraction of the pinch. The experimental results are found to agree with theoretical calculations of the light flux distribution with allowance for the finite dimensions of the monochromator slit and other factors. Orig. art. has: 12 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 27Jan65/ ORIG REF: 003

Card 2/2

KAGAN, Yu. S.

CHERKES, A.I.; GORODINSKAYA, V.Ya.; KAGAN, Yu.S.

Pharmacology of sulfanilamides. Vop. fiziol. no.5:100-112 '53.  
(MLRA 8:1)  
1. Kiyevskiy meditsinskiy institut, kafedra farmakologii.  
(SULFANILAMIDES,  
pharmacol.)

BOGUSHEVSKIY, S.M.; KAGAN, Yu.S.

Certain problems of work hygiene in mechanized cultivation of cotton. Gig.i  
san. no.11:19-21 N '53. (MLRA 6:10)

1. Kiyevskiy institut gigiyeny truda i professional'nykh zabolеваний.  
(Industrial hygiene) (Cotton growing and manufacture)

USSR.

The effect of vitamin B<sub>1</sub> on the biochemical transformations of sulfonamides in the animal organism. V. S. Kagan. *Voprosy Fisiol.* 1953, No. 6, 120-31; *Ryazhsk. Zhur. Khim.* 1954, No. 21812. — Into the stomach of healthy rabbits was introduced a suspension of sulfonamides (I) or sulfapyridine, followed by dext. of free and acetylated forms of I in the blood. Simultaneous addn. of vitamin B<sub>1</sub> (II) in some instances increased the amt. of acetylated I in the blood; on prolonged (7-31 days) addn. of II, the amt. of the acetylated I increased markedly. This effect was most pronounced in the case of animals possessing some degree of hypovitaminosis. The application of II for prophylaxis and cure of the neurotoxic complications resulting from sulfonamide therapy is suggested. E. Withfield

Chair Pharmacology, Kiev Med. Inst.

USSR/Pharmacology and Toxicology - Toxicology.

V-9

Abs Jour : Ref Zhur - Biol., No 21, 1958, 93628

Author : Kagan, Yu.S., Shlyeyshan, F.I.

Inst : -

Title : Change of Condition of the Olfactory Analyzer as One of the Indicators of a Poison and Dust Effect on the Human Organism.

Orig Pub : V sb.: Vopr. fiziologii truda, Kiyev, Medgiz USSR, 1955, 149-155.

Abstract : By investigation of the condition of the olfactory analyzer in workers after 5 days of work in field which had been treated with sodium arsenite (concentration of As in the respiratory zone 0.0007 mg/l and up), lowering of threshold of sensitivity (TS) and differentiation of the smell of ethyl alcohol, phenol and acetic acid were noted. In workers at a sodium arsenite warehouse (qualification 1.5-20 years), increase of TS was established.

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*KAGAN, Yu. S.*

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"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619920001-3

APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000619920001-3"

1. A. Yu. S.

"Experimental Data on Toxicity of Organochlorine Insecticides  
and the Therapy of Poisoning by Them"  
paper presented at the First Conference on Pesticides Compounds,  
Kazan, 2- 1. Dec 56

CC: B-2, 84, 241

KAGAN, Yu.S.

Experimental data on therapy in cases poisoning by parathion, an insecticide containing organic phosphorus. Farm. i toks. 19 no.2: 49-52 Mr-Ap '56. (MLRA 9:7)

1. Toksikologicheskaya laboratoriya Kiyevskogo instituta gigiyeny truda i profzabolevaniy.

(PARATHION, poisoning

eff. of diphenylacetic acid propyl ester HCl & diethylaminoethyl ester of phenyl cyclopentacarbonic acid in animals (Rus))

(ACID AICD, derivatives,

diphenylacetic acid propyl ester, eff. on exper. parathion pois. (Rus))

(MUSCLE RELAXANTS, effects,

diethylaminoethyl ester of phenyl cyclopentacarbonic acid on exper. parathion pois. (Rus))

(POISONING, experimental,

parathion, eff. of diethylaminoethyl ester of phenyl cyclopentacarbonic acid & diphenylacetic acid propyl ester HCl (Rus))

"Modification of the Condition of the Olfactory Analyser -- One of the Indicators of the Effect of Poisons and Dust on the Human Organism," by Yu. S. Kagan and E. M. Shleyfman, Voprosy Fiziologii Truda (Problems of the Physiology of Labor), Kiev 55, 149-155 (from Sovetskoye Meditsinskoye Referativnoye Obozreniye, Zdravookhraneniye, Gigiiena i Sanitariya, Istochniki Meditsiny, Moscow, No 15, 1956 abstract by O. Mogilevskaya, p 68

"The authors investigated the condition of the olfactory analyser in persons engaged in work with sodium arsenite, granozan, and formalin, and in persons responsible for the storing and issue of these chemicals. The sensitivity of the olfactory analyser was established by the determination of the threshold of its sensitivity to the odors of alcohol, acetic acid, and phenol. It was found that in persons working with sodium arsenite the curves of sensitivity to and differentiation between the odors of alcohol, acetic acid, and phenol were somewhat higher than the normal. A Dubrovskiy olfactometer which makes it possible to force into the nasal cavity a portion of air saturated with the vapors of a heated substance was used by the authors in their investigations. The pressure with which the air was forced into the nasal cavity was measured by means of an anerometer introduced into the olfactometer, and served as a criterion for the determination of the quantity of vapors introduced into the nasal cavity. Three indicators of the condition of the olfactory analyser were determined: the threshold of olfactory sensitivity, the period of time required for its adaptation to the odor, and the period of time required for the restoration of the analyser to the threshold of stimulation when loaded with vapors of the odoriferous substance.

S-1M 13-22

"The investigations established: a rise in the threshold of olfactory sensitivity occurred in persons working with granozan; the adaptation of the analysor to the odor was hastened; the period of time required for the restoration of the analysor to the threshold of stimulation when loaded with vapors increased; and sharp modifications of the functions of the olfactory analysor occurred in persons who had worked with granozan for prolonged periods of time (1-10 years).

"The authors came to the conclusion that the condition of the olfactory analysor was modified by the action of poisons and dust, that short periods of work with some chemicals (sodium arsenite) caused a rise in its sensitivity, and that work for prolonged periods of time caused a diminution of its sensitivity. Modifications of the sensitivity were found in all persons under observation: 38 percent of them exhibited hypertrophic rhinitis and rhinopharingitis. The authors recommend the use of the olfactory method for the early determination of the effect of poisons and dust on the human organism." (U)

544.13.2.2

"Experimental Data on the Reflex Mechanism of the Action of Mercuric and Organophosphorus Insectofungicides," by L. I. Medved', Yu. S. Kagan, and Ye. I. Spynu, VIII Vsesoyuznyy S'ezd Fiziologov, Biokhimikov, Farmakologov (VIII All-Union Session of Physiologists, Biochemists, and Pharmacologists) Moscow, 1955, 408-410 (from Sovetskoye Meditsinskoye Referativnoye Obozreniye, Normal'naya i Patologicheskaya Fiziologiya, Biokhimiya, Farmakologiya i Toksikologiya, No 27, 1956, abstract by F. Meyerson, pp 126-127)

"Experiments in which the conditioned reflex method was utilized established that the administration of toxic doses of thiophos and carbon-phosphorus to animals produced an inhibitory reaction of the higher branches of the nervous system marked by a prolongation of the latent period of conditioned reflexes and the time necessary for their transmission, phase manifestations, their extinction, an absence of the natural conditioned reflex to food, and a diminution of the orientation reflex. These disturbances, which are reversible in character, may be regarded as being in the nature of a protective-defensive inhibition. This is confirmed by the positive results which are obtained with the use of soporific substances in the therapy of intoxications in animals by thiophos.

SYM. 1374

KAGAN, Y.S.

"The inhibition of the activity of cholinesterase and the accumulation of acetylcholine play an important role in the mechanism of the toxic action of organophosphorus compounds. The changes which take place in conditioned reflex activity and in the activity of the serum cholinesterase are parallel and form the early symptoms of intoxication. The authors concluded that the mercuric and organophosphorus compounds, being enzymic poisons with selective action on the thiol enzymes and cholinesterase, respectively, even in small doses cause changes in the functional condition of the nervous system. In a number of cases it was possible to establish a definite dependence of the changes in the nervous system on the degree of depression of the enzymic systems. (U)

SYM.1374

KAGAN, Yu. S. (Kiev Inst. Labor Hygiene and Occ. Diseases)

Insecticides

"Experimental Data on the Toxicology of Organophosphorus ~~substances~~ and the Therapy of Poisoning by Them" (Eksperimental'nyye dannyye po toksikologii fosfororganicheskikh insektitsidov i terapii otravleniy imi)

Chemistry and Uses of Organophosphorus Compounds  
(Khimiya i primeneniye fosfororganicheskikh soyadneniy),  
Trudy of First Conference, 8-10 December 1955, Kazan,  
Published by Kazan Avil. A3 USSR, 1957

PP. 384-396

Report discussed by K. S. Shadurskiy (Minsk State Med. Inst.) and M. Ya. Mikhel'son  
(1st Leningrad Med. Inst. im. Acad. I. P. Pavlov)

"Labor Hygiene in Connection with the Spraying of Mercaptophos and Octamethyl on Cotton Plants," by Yu. S. Kugan, Candidate of Medical Sciences, Zashchita Rasteniy ot Vrediteley i Bolezney, Vol 2, No 3, May/Jun 57, pp 48-49

The author urges particular caution in the handling and spraying mercaptophos and octamethyl--pesticides widely utilized for the control of pests which attack cotton plants. Both are potent poisons and are readily absorbed through the skin, causing intoxications. The symptoms of intoxication are salivation, disturbed vision, muscular twitching, disturbed respiration, and occasionally, tremors and convulsions. Mercaptophos and octamethyl should be applied by trained personnel only. All must be provided with protective clothes and equipment. The safest method of applying the chemicals is from a plane. All personnel engaged in working with the chemicals should undergo periodical medical examinations to determine their blood cholinesterase activity. (U)

~~KAGAN, Yu.S.; MAKOVSKA, Ye.I.~~

Cerebral changes in experimental animals in poisoning from mercaptophos insecticide, a phosphorus organic compound [with summary in English]. *Fiziol. zhur. [Ukr.]* 3 no.3:77-84 '57.  
(MLRA 10:8)

(PHOSPHORUS ORGANIC COMPOUNDS--TOXICOLOGY)  
(BRAIN) (INSECTICIDES)

KAGAN, Yu.S., kend.med. nauk

Industrial hygiene during the use of systemic organic phosphate  
insecticides [with summary in English]. Gig. i san. 22 no.7:15-21  
J1 '57. (MIRA 10:10)

1. Iz Kiyevskogo instituta gigiyeny truda i professional'nykh  
zabolevaniy.

(INSECTICIDES, poisoning,  
phosphates causing occup. pois., prev. (Rus))

(PHOSPHATES, poisoning,  
insecticides, prev. of occup. pois. (Rus))

KAGAN, Yu.S. (Kiev)

Relation between the toxicity and chemical structure of certain  
phosphorus organic insecticides. Gig.truda i prof. zab. 2 no.5  
7-15 8-0 '58 (MIRA 11:11)

1. Institut giglyeny truda i profsabolevaniy.  
(PHOSPHORUS ORGANIC COMPOUNDS)  
(INSECTICIDES)

KAGAN, Yu.S., kand. med. nauk (Kiyev); SPYBU, Ye.I., kand. med. nauk (Kiyev).

In the plenum of the committee on agricultural chemicals. Zashch.  
rast. ot vred. i bol. 1 vol. 3 no.3:62 My-Je '58. (MIRA 11:6)  
(Insecticides) (Fungicides)

KAGAN, Yu.S., kand.med.nauk; KUMDIYEV, Yu.I., kand.med.nauk; TROTSENKO, M.A.,  
kand.khim.nauk (Kiev)

Safety measures in using phosphorus organic insecticides for  
orchard spraying. Zashch. rast. ot vred. i bol. 3 no. 4:29  
Jl-Ag '58. (MIRA 11:9)  
(Phosphorus organic compounds) (Chemicals--Safety measures)

KAGAN, Yu.S.

First All-Union Conference on The Hygiene and Toxicology of  
Insecticides and Fungicides. Farm. i toks. 21 no.1:87-89 Ja-F '58,  
(AGRICULTURAL CHEMICALS--TOXICOLOGY) (NIRA 11:4)

MEDVED', L.I., dotsent, red.; KRIVOGLAZ, B.A., prof., red.; KAGAN, Yu.S.,  
kand.med.nauk, red.; SEREBRYANAYA, S.O., dotsent, red.;  
TOSTANOVSKAYA, A.A., kand.med.nauk, red.; KUNDIYEV, Yu.I., kand.  
med.nauk, red.; BURKATSKAYA, Ye.N., kand.med.nauk, red.; SPYNU,  
Ye.I., kand.med.nauk, red.; NOVIKOV, Yu.V., red.; BUL'DYAYEV,  
N.A., tekhn.red.

[Hygiene, toxicology, and clinical aspects of new insecticides  
and fungicides] Gigiена, toksikologiya i klinika novykh insekto-  
fungitsidov; trudy. Pod obshchei red. L.I. Medvedia. Moskva, Gos.  
izd-vo med.lit-ry Medgiz, 1959. 370 p. (MIRA 14:1)

1. Vsesoyuznaya nauchnaya konferentsiya po gigiyene i toksikologii  
insektofungitsidov. 1st, Kiyev, 1957. 2. Kiyevskiy institut  
gigiyeny truda i profzabolevaniy (for Medved', Kagan, Kundiyev,  
Spynu). 3. Ukrainskiy nauchno-issledovatel'skiy institut pitaniya  
(for Tostanovskaya).  
(Insecticides) (Fungicides)

KAGAN, Yu. S.; SPINU, Ye. I.; MAKOVSKAYA, Ye. I.; BRAKHNOVA, I. T.

"Experimental data on the toxicology of phosphoro-  
organic insecticides."

report submitted at the 13th All-Union Congress of Hygienists,  
Epidemiologists and Infectionists, 1959.

KAGAN, Yu. S.; SPYNU, Ye. I.; BURKATSKAYA, Ye. N.; BRAKHNOVA, T. T.;  
MEDVED', L. I.

"Basic principles of hygienic evalation of insectofungicides."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists  
and Infectionists, 1959.

KAGAN, Yu.S. [Kahan, Iu.S]

Toxicology of O,O-diethyl- $\beta$ -ethylmercaptoethylthiophosphate  
(mercaptophos) and its isomers. Fiziol. zhur. [Ukr.] 5 no.1:  
110-118 Ja-F '59. (MIRA 12:5)

1. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny  
truda i profzabolevaniy.  
(ETHYL THIOPHOSPHATE--TOXICOLOGY)

KAGAN, Yu. S., kand. med. nauk

Safety measures in handling phosphorus organic poisons. Zashch.  
rast. ot vred. i bol. 5 no.5:45-46 My '60.  
(MIRA 16:1)

(Agricultural chemicals—Safety measures)  
(Phosphorus organic compounds)

MASTRIUKOVA, T.A.; GEFTER, Ye.L.; XAGAN, Yu.S.; PAYKIN, D.M.; SHABAIKOVA, M.P.; GAMPER, N.M.; YEFIMOVA, L.F.; KAVACHNIK, M.I.

Phosphoroorganic insecticides. 3-Chlorobutetyl-2-phosphates and thiophosphates. Zhur. ob. khim. 30 no.9:2813-2816 S '60.  
(MIRA 13:9)

1. Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR.  
(Insecticides)

KAGAN, Yu.S. (Kiyev)

Reactivation of cholinesterase and experimental treatment mercaptophos  
poisoning. Pat.fiziol.i eksp.terap. 5 no.13 63-65 Ja-F '61.  
(MIRA 14:6)

1. Iz toksikologicheskoy laboratorii Kiyevskogo instituta gigiyeny  
truda i profzabolevaniy.  
(CHOLINESTERASE) (SYSTOX) (PYRUVALDEHYDE)

KAGAN, Yu.S.; IVANOVA, Z.V.

Anticholinesterase activity and toxicity of the sulfoxide and  
sulfone of M-74. Farm. i toks. 24 no.2:220-223 Mr-Ap '61.  
(MIRA 14:6)

1. Kiyevskiy institut gigienny truda i profzabolevaniy.  
(PHOSPHATES) (CHOLINESTERASE)

MEDVED', L.I., doktor med. nauk, red.; BURKATSKAYA, Ye.N., kand.med. nauk, red.; VOYTENKO, G.A., kand. med. nauk, red.; KAGAN, Yu.S., red.; KRIVOGLAZ, B.A., prof., red.; KUNDIYEV, Yu.I., kand. med. nauk, red.; MAKOVSKAYA, Ye.I., doktor med. nauk, red.; SEREBRYANAYA, S.G., dots., red.; SPYNU, Ye.I., kand. med. nauk, red.; TOSTANOVSKAYA, A.A., kand. med. nauk, red.; TROTSENKO, M.A., kand. khim. nauk, red.; NOVIKOV, Yu.V., red.; CHULKOV, I.F., tekhn. red.

[Hygiene and toxicology of new pesticides and clinical aspects of poisoning; reports of the Second All-Union Scientific Conference of the Committee for the Study and Regulation of Poisonous Chemicals of the Main State Sanitary Inspection of the U.S.S.R.] Gigiena i toksikologija novykh pestitsidov i klinika otravlenii; dokladы 2-1 Vsesoyuznoi nauchnoi konferentsii Komiteta po izucheniiu i regulamentatsii iadokhimikatov Glavnogo gosudarstvennogo sanitarnoi inspektsii SSSR. Pod obshchey red. L.I. Medvedia. Moskva, Medgiz, 1962. 478 p. (MIRA 16:4)

1. Vsesoyuznaya nauchnaya konferentsiya po gigiyene i toksikologii insektofungitsidov, 2d, 1962. (Continued on next card)

MEDVED', L.I.----(continued). Card 2.

2. Predsedatel' Komiteta gosudarstvennoy sanitarnoy inspeksii  
SSSR po izucheniyu i reglamentatsii yadokhimikatov (for,  
Medved'). 3. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny  
truda i profzabolevaniy (for Burkatskaya, Voytenko, Spivu,  
Kagan, Trotsenko). 4. Ukrainskiy nauchno-issledovatel'skiy insti-  
tut pitaniya (for Serebryanaya).

(PESTICIDES--TOXICOLOGY)

1962-94-1

71. BIOLOGICAL ACTIVITY OF B. <sup>147</sup> AND METRO- AND DIAMINODIACIDIC ACIDS AND THEIR COMBINATIONS. I. G. AFANAS'EV et al. I. V. ZAFARZIKHOVA	417
72. COMPARATIVE AND CLINICAL INVESTIGATION ACTIVITY AND TOXICITY OF CHAMOICIDIC COMPOUNDS. G. V. KARAEV, I. A. SLEPYAN	445
73. DEPENDENCE OF THE CICATRIZING AND PHARMACOLOGICAL ACTION OF SOME MIXED ELLIPTICS OF HYDROXYLIC AND CARBOXYLIC ACIDS. I. V. ZAFARZIKHOVA	475
74. TOXICITY AND SOME PHARMACOLOGICAL PROPERTIES OF NEW ORGANOPHOSPHORUS COMPOUNDS. V. N. KARAEV	483
75. EFFECT OF CHAMOICIDIC COMPOUNDS ON REPRODUCTION AND COMMISSION. I. V. ZAFARZIKHOVA et al.	493
76. BLOCKING AND STIMULATING ACTION OF ALKALOIDIC POLYACIDIC COMPOUNDS. I. M. POLYAKOV et al. V. V. KARAEV	498
77. USE OF PHENOLS (LIPOLIC ACID) AS ANTIULCER OF ENTOMOPHAGAL INSECTICIDES IN THE USSR. V. N. ALEXANDROV	522
78. USE OF ORGANOPHOSPHORUS COMPOUNDS IN THE TREATMENT OF RHAMPHIASIS AND RHAMPHAL PARALYSIS. V. V. P. SOKOLOV	545
79. TOXICOLOGY OF CHAMOICIDIC COMPOUNDS. S. B. VASIL'YEV	560
80. MORPHOLOGICAL CHANGES IN THE ANIMAL ORGANS AFTER ORGANOPHOSPHORUS POISONING. E. I. MAKOVSKAYA	575
81. PROTECTIVE AND THERAPEUTIC ACTIONS OF LINDANE (HEXACHLOROETHANE) JOINTLY WITH SCOPOLAMINE AND PROCAINE. A. G. CHIGIN	600
82. PROPHYLAXIS AND TREATMENT OF TOXICOSIS BY CHLORINE INSECTICIDES. K. A. VYDOLIKHIN	605
83. MECHANISM OF THE ACTION OF P-NITROPHENYL DIUTYLYLPHOSPHINATE. PREPARATION 112. I. V. ZAFARZIKHOVA and I. A. SLEPYAN	609
84. CLINICAL OBSERVATION OF P-NITROPHENYL DIUTYLYLPHOSPHINATE IN GLAUCOMA. V. M. KERIMOVA	605
85. DIPRO (DITHIO) - A NEW ORGANOPHOSPHORUS COMPOUND AGAINST GLAUCOMA. Z. N. OLSOVA	608
86. TREATMENT OF GLAUCOMA BY ORGANOPHOSPHORUS COMPOUNDS. G. I. TIKHOMIROV	512
87. TOXICITY OF ORGANOPHOSPHORUS COMPOUNDS FOR ANIMALS WITH RADIATION SICKNESS. A. I. Slobodov	515
88. ORGANOPHOSPHORUS COMPOUNDS AS ANTERADIATION SICKNESS THERAPEUTIC AND RADIOPROTECTIVE AGENTS. K. A. D. SARKISIN et al.	520
89. EFFECT OF ORGANOPHOSPHORUS ESTERS ON ERYTHROPOEISIS. I. D. NEKLESOV and L. SH. MINYABEVA Khatiya i Tifl'skogo i Tver'skogo Naučno-tekhnicheskogo Soedineniya (Chemistry and Application of Organophosphorus Compounds) A. Ye. Arbusov, Ed. publ. by Naučn' Aifil, Acad. Sci. USSR, Moscow, 1962 64pp.	524

Collection of complete papers presented at the 1959 Kauai Conference on Chemistry of  
Cyanophosphorus Compounds.

KAGAN, Yu.S., kand.med.nauk; TANK, L.I.

Brief news. Farm. i toks. 25 no.1:126-127 Ja-F '62. (MIRA 15:4)  
(PHARMACOLOGY--CONGRESSES)

KAGAN, Yuriy Solomonovich, doktor med.nauk; KHAMIDULLIN, R.S.,  
red.; iETROVA, N.K.; tekhn. red.

[Toxicity of phosphorus organic insecticides and work  
hygiene in their use] Toksikologiya fosfororganicheskikh  
insektitsidov i gigiena truda pri ikh primenenii. No-  
skva, Medgiz, 1963. 324 p. (MIRA 16:10)  
(SPRAYING AND DUSTING IN AGRICULTURE--HYGIENIC ASPECTS)  
(PHOSPHORUS ORGANIC COMPOUNDS--TOXICOLOGY)

REPORT L. I. and U. S.

"theoretical problems of the toxicology of pesticides."

Report presented at the 2nd All-Union Scientific Conference on the Hygiene and Toxicology of Pesticides, Ministry of Health USSR Committee on the Study and Regulation of New Poisonous Chemicals of the Main State Sanitary Inspection USSR and Kiev Institute of Labor Hygiene and occupational Diseases, Kiev 17-19 Oct 1962.  
(Gigiyena i Sanitariya, No. 3, 1963 p. 104-105.)

Kiev Institute of Labor Hygiene and Occupational Diseases.

KAGAN, Yu,S., kand.med. nauk (Kiyev)

First aid in poisoning by toxic chemicals. Med. sestra 22  
no.6:34-35 Je'63. (MIRA 16:9)  
(CHEMICALS—PHYSIOLOGICAL EFFECT)  
(FIRST AID IN ILLNESS AND INJURY)

KAGAN, Yu.S.

Second All-Union Scientific Conference on the Hygiene and Toxicology of Pesticides. Farmakol. toksik. 26 no.3:387-389 My-Je'63  
(17:2)

ACCESSION NR: AP4012593

S/0021/64/000/002/0275/0278

AUTHOR: Yefimov, G. O.; Kagan, Yu. S.

TITLE: The toxicity of diesters of urethanphosphoric acids for insects and warm-blooded animals

SOURCE: AN UkrRSR. Dopovidi, no. 2, 1964, 275-278

TOPIC TAGS: organophosphorus compound, insecticide, organic phosphorus insecticide, anticholinesterase, toxicity

ABSTRACT: The present work dealt with organophosphorus compounds, the diesters of urethanphosphoric acids of the type  $\text{ROOCNHP(O)(OR')}_2$ , where R and R' are alkyls. The dimethyl esters of isopropyl', methyl- and ethylurethanphosphoric acids are very toxic for the sugar-beet weevil, the first-mentioned being the most toxic. Preparations of diesters have high selective toxicity for certain insect species of the order Diptera (Musca domestica, M. stabulans, Hylemia antiqua and Pegonias hyosciami). The preparations were tested on rats and found to be practically harmless, manifesting a very weak anticholinesterase activity in vitro and not being transformed into active anticholinesterase agents in the animal organism. Orig. art. has 2 tables.

Card 1/2

ACCESSION NR: AP4012593

ASSOCIATION: Insty\*tut organichnoyi khimiyi AN UkrRSR (Institute of Organic Chemistry, AN UkrRSR)

SUBMITTED: 06May63

DATE ACQ: 03Mar64

ENCL: 00

SUB CODE: AM

NO REF Sov: 009

OTHER: 000

Card 2/2

SHABANOVA, M.P.; KAGAN, Yu.S.; PRILEZHAYEVA, Ye.N.; TSUMEAL, L.V.;  
MAKHLINA, Ye.Ya.

Relationships between the structure of some esters of dialkyl-  
dithiophosphoric acids and their toxicity for arthropods and  
vertebrated animals. Trudy VIZR no. 21 pt.1:114-125 '64.  
(MIRA 18:12)

KAGAN, Yu.S.; KLISENKO, M.A.; PAN'SHINA, T.N.

Significance of detoxifying processes in the mechanism of selective  
toxicity of phosphorus organic insecticides. Vop. pit. 24 no.3:68-  
74 My-Je '65. (MIRA 18:12)

1. Kiyevskiy nauchno-issledovatel'skiy institut gigiyeny  
truda i professional'nykh zabolеваний. Submitted July 23,  
1964.

ACC NR: AP6029023

SOURCE CODE: UR/0413/66/000/014/0024/0024

INVENTOR: Sanin, P. I.; Shepeleva, Ye. S.; Borodach, M. S.; Myannik, A. O.; Kagan, Yu. S.; Gel'fer, A. P.; Paykin, D. M.; Camper, N. M.

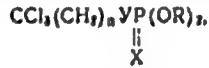
ORG: none

TITLE: Preparation of esters of phosphoric and thiophosphoric acids. Class 12, No. 183751 [announced by Institute of Petrochemical Synthesis, AN SSSR (Institut neftekhimicheskogo sinteza AN SSSR)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 24

TOPIC TAGS: insecticide, chloroalkyl phosphate, chloroalkyl thiophosphate, ester, phosphoric acid

ABSTRACT: In the proposed method for the preparation of herbicides, the phosphoric and thiophosphoric esters of the general formula:



(where X and Y are O or S; n = 1, 4, 6, 8; and R is an alkyl) are obtained by the reaction of trichloroalkyl alcohols with tetrachloroalkanes [sic]. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 21Jun65/

Card 1/1

UDC: 547.26'118.07

KAGAN, Z. S.

1. DOMAN, N. G. and KAGAN, Z. S.
2. USSR (600)
4. Esters
7. Chromatographic determination of phosphoric esters by distribution on paper.  
Biokhimiia 17 no. 6, 1952.

Translation - M -

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

KAGAN, Z. S.

USSR/Biology - Microbiology

Card 1/1 Pub. 22 -47/56

Authors : Lyubimov, V. I., and Kagan, Z. S.

Title : Urease and arginase in certain types of Azotobacter

Periodical : Dok. AN SSSR 99/5, 845-848, Dec 11, 1954

Abstract : The presence of active arginase and urease in Motobacter and their connection with the appearance of  $\text{NH}_3$  in Azotobacter cultures are discussed. Comparative determination of urease activity in Micrococcus urease cells which reaches its maximum at pH 6,8, showed that Azotobacter cells contain more urease than uro-bacteria. The physiological importance of the urea splitting process in bacteria and the spreading of urease among the bacteria is explained. Twelve references: 6-USSR; 3-USA and 1-German (1926-1954). Tables; graph; drawing

Institution : .....

Presented by: Academician V. N. Shaposhnikov, October 5, 1954

AID P - 1407

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 4/23

Authors : Lyubimov, V. I., Kand. of Biol. Sci.  
Kagan, Z. S., Junior Scientific Worker

Title : Adsorption of ferments by active silt.

Periodical : Gig. i san., 1, 16-18, Ja 1955

Abstract : A study of silt as a "catalyst" in the process  
of sewage purification, its fermentation  
properties and the increase in its activity due  
to the adsorption of ferments discharged by  
bacteria. 3 tables, 5 ref., 1923-1945.

Institution: Scientific Research Dept. of the Moscow Trust  
"MOSOCHISTVOD" of the Administration of Water  
Supply and Sewage System of the Moscow Municipa-  
l Council of Workers' Deputies.

Submitted : My 10, 1954

to an intracellular enzyme and the permeability is regula-  
ted by the metabolic reactions.

Card 1/1

- 8 -

KAGAN, Z.S.

AUTHOR:

Kagan, Z.S.

62-12-11/2C

TITLE:

The Synthesis of  $\alpha$ -Keto Acids by Means of "Azlactone" of the N-Acyl- $\alpha$ -Amino- $\beta$ -Alkyl(Aryl)-Acrylic Acid and a New Synthesis of  $\alpha$ -Keto- $\beta$ -Methyl-n. Valerenic Acid (Sintez  $\alpha$ -ketokislot cherez azlaktony N-atsil- $\alpha$ -amino- $\beta$ -alkil (aryl) akrilovoy kisloty i novyy sintez  $\alpha$ -keto- $\beta$ -metil-n. valerianovoy kisloty).

PERIODICAL:

Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1957, Nr 12, pp. 1486-1488 (USSR)

ABSTRACT:

For the synthesis of the  $\alpha$ -keto acids a number of general methods is suggested. Even though some  $\alpha$ -keto acids, especially the aromatic ones, are usually obtained by condensation of the aldehydes with N-acyl glycines (with formation of "azlactones" of the N- $\alpha$ -amino- $\beta$ -aryl acrylic acid and subsequent hydrolysis), this way of synthesizing is not to be considered a general method. In the present paper the condensation of aldehydes or ketones with acyl glycines and following hydrolysis of the "azlactones" of N-acyl- $\alpha$ -amino- $\beta$ -alkyl (aryl) acrylic acid is described as another possible method of  $\alpha$ -keto acids. The synthesis of  $\alpha$ -ketoisovalerenic acid was repeated by the condensation of acetone with hyppuric acid (with following

Card 1/2

The Synthesis of  $\alpha$ -Keto Acids by Means of "Azlactone" of the  
the N-Acyl-  $\alpha$ -Amino-  $\beta$ -Alkyl(Aryl)-Acrylic Acid and a New  
Synthesis of  $\alpha$ -Keto-  $\beta$ -Methyl- $\alpha$ -Valerianic Acid

62-12-11/20

hydrolysis of the "azlactone"). Furthermore, a new synthesis of  
 $\alpha$ -keto-  $\beta$ -methyl- $\alpha$ -valerianic acid by condensation of the methyl  
ethyl ketone with hypuric acid with following hydrolysis of the  
"azlactone" of the N-benzoyl-  $\alpha$ -amino-  $\beta$ -methyl-  $\alpha$ -ethylacrylic  
acid was described. There are 25 references, 5 of which are Slavic.

ASSOCIATION: Biochemical Institute AN USSR imeni A.N. Bakh (Institut biokhimii  
im. A.N. Bakh Akademii nauk SSSR).

SUBMITTED: July 7, 1957

AVAILABLE: Library of Congress

Card 2/2    1.  $\alpha$ -Keto acids-Azlactone-Synthesis    2.  $\alpha$ -Keto- $\beta$ -Methyl- $\alpha$ -  
Synthesis    3. Valerianic acid

LYUBIMOV, V.I., KAGAN, Z.S.

Dynamics of volatile organic acids produced during anaerobic decomposition of organic matter by micro-organisms in methane tanks [with summary in English]. Mikrobiologiya 27 no.4:484-488 Jl-Ag '58 (MIRA 11:9)

1. Lyuberetskaya laboratoriya nauchno-issledovatel'skogo otdela tresta "Mosochistvod."

(ACIDS, metabolism,

volatile organic acid form. by microorganisms in methane tanks (Rus))

(MICROORGANISMS, metabolism

synthesis of volatile organic acids by organic decomposition in methane tanks (Rus))

KRETOVICH, V.L.; KAGAN, Z.S.

Biosynthesis of valine and isoleucine in ripening wheat ears.  
Biokhimiia 24 no.4:717-722 J1-Ag '59. (NIRA 12:11)

1. Institut biokhimii im. A.N.Bakha AN SSSR, Moskva.  
(WHEAT) (VALINE) (ISOLEUCINE)

KAGAN, Z.S.; GALYAS, E.

"Paper chromatography." Reviewed by Z.S.Kagan, E.Galias. Biokhimiia  
25 no.2:380-381 Mr-Ap '60. (MIRA 14:5)  
(PAPER CHROMATOGRAPHY)

KAGAN, Z. S. (USSR)

"Biosynthesis of Beline and Isoleucine in Plants from Various  
Nitrogen-free Precursors."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

KAGAN, Z.S.

Synthesis of  $\alpha,\beta$ -dihydroxy- $\beta$ -methylvaleric acid. Izv.  
AN SSSR Otd.khim.nauk no.2:317-320 F '62. (MIRA 15:2)

1. Institut biokhimii im. A.N.Bakha AN SSSR.  
(Valeric acid)

KRETOVICH, V.L.; KAGAN, Z.S.

Biosynthesis of valine and its keto analogue in sunflower sprouts.  
Dokl. AN SSSR 143 no.3:727-729 Mr '62. (MIRA 15:3)

1. Institut biokhimii im. A.N.Bakha AN SSSR. Predstavлено академиком  
A.I.Oparinym.  
(VALINE) (PLANTS--METABOLISM)

KAGAN, Z.S.

$\beta,\beta$ -dimethylacrylic acid as a precursor of amino acids in plants.  
Biokhimiia 27 no.4:715-721 Jl-Ag '62. (MIRA 15:11)

1. Institute of Biochemistry, Academy of Sciences of the U.S.S.R.,  
Moscow.

(AMINO ACIDS) (ACRYLIC ACID)

KAGAN, Z.S.; KRETOVICH, V.L.; CHEYSHNER, G.

Biosynthesis of isoleucine and its  $\alpha$ ,  $\beta$  -dihydroxy analog  
in seedlings of various plants. Fiziol. rast. 10 no.4:458-  
464 Jl-Ag '63. (MIRA 16:8)

1. A.N. Bakh Institute of Biochemistry, Academy of Sciences,  
U.S.S.R. and the Technological Institute of Food Industry,  
Moscow.

LYUBIMOV, V.I.; KAGAN, Z.S.; VASILEYKO, M.A.; POPOVA, O.Ye.

Decomposition of volatile organic acids by microorganisms of  
"active sludge". Mikrobiologiya 32 no.4:700-702 Jl-Ag '63.  
(MIRA 17:6)

1. Lyuberetskaya laboratoriya nauchno-issledovatel'skogo otdela  
tresta "Mosochistvod".

KAGAN, Z.S.

Biosynthesis of valine, isoleucine, and leucine in micro-organisms  
and plants. Usp.biol.khim. 5:61-99 '63. (MIR 17:3)

KAGAN, Z.S.; CHOYSHNER, G.; KRETOVICH, V.L.

Biosynthesis of valine and isoleucine from their keto-  
and dioxianalogs in flowering parasitic plants. Dokl.  
AN SSSR 154 no.2:467-470 Ja'64. (MIRA 17:2)

1. Institut biokhimii im. A.N. Bakha AN SSSR i Tekhnologicheskiy  
institut pishchevoy promyshlennosti. 2. Chlen-korrespondent  
AN SSSR (for Kretovich).

KAGAN, Z.S.; KRETOVICH, V.L.; POLYAKOV, V.A.; MISHCHENKO, A.V.

Effect of transamination inhibitors on the biosynthesis of  
valine from its keto analog in plants. Dokl. AN SSSR 157  
no.5:1231-1233 Ag '64. (MIRA 17:9)

1. Institut biokhimii im. A.N. Bakha AN SSSR i Tekhnologicheskiy  
institut pishchevoy promyshlennosti, Moskva. 2. Chlen-korres-  
pondent AN SSSR (for Kretovich).

KRAUZE, Yezh; KAGAN, Z.S.; KRETOVICH, V.I.

Two dehydrogenases of homoserine in bakers' yeast. Dokl. AN SSSR 158  
no. 5:1199-1201 0 '64. (MIRA 17:10)

1. Institut b'okhimii im. A.N.Bakha AN SSSR i Tekhnologicheskiy institut  
pishchevoy promyshlennosti, Moskva. 2. Chlen-korrespondent AN SSSR (for  
Kretovich).

KONDORSKAYA, G.K.; KAGAN, Z.S.; KRETOVICH, V.I.

Effect of light on the dynamics of ammonium assimilation by  
wheat sprouts. Izv. AN SSSR Ser. biol. 30 no.1:141-144. Ja-F  
'65. (MIRA 18:2)

1. Institut biokhimii im. A.N. Bakha AN SSSR i Tekhnologicheskiy  
institut pishchevoy promyshlennosti, Moskva.

KAGAN, Z. Z.; CHOYSHNER, G.

Synthesis and some properties of  $\alpha, \beta$ -epoxy- $\beta$ -methyl-n-valeric (methylmethyleglycidic) acid. Izv. AN SSSR. Ser. khim. no. 7:1222-1225 '65. (MIRA 18:7)

1. Institut biokhimi im. A.N.Bakha i Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti.

KRAUZE, Ye.; KAGAN, Z.S.; YAKOV'IEVA, V.I.; KRETOVICH, V.L.

Dehydrogenation of some amino acids by baker's yeast. Biokhimiia 30  
no.2:334-343 Mr-Ap '65. (MIRA 18:7)

1. Institut biokhimi imeni Bakha AN SSSR i Tekhnologicheskiy institut  
plshchey promyshlennosti, Moskva.

KAGAN, Z.S.; CHOYSHNER, G.; KRETOVICH, V.L.

Biosynthesis of valine and isoleucine in wheat sprouts:  
dihydroxy acid dehydratase. Biokhimiia 29 no.4:624-635  
Jl. Ag '64. (MIRA 18:6)

1. Institut biokhimii imeni Bakha AN SSSR i Tekhnologicheskiy  
institut pishchevoy promyshlennosti, Moskva.

Б.Г.М., Д.Д.; МАИИНА, А.А.

Valine and isoleucine biosynthesis from lysine and arginine in corn  
in the leaves and roots of corn. Dokl. N. S. S. R. 1965, 172, 227  
Ja '66.

1. Institut biokhimii im. A.N.Baikova AN SSSR. 2. Nauk. i tekhn. tsentr  
tekhnologicheskogo initsiatut psicheskoj prirody i psicheskoj tekhniki  
February 14, 1965.

KAGAN-BARSKIV, L.Sh., inzh.

Optimum control of the working conditions of contact clarifiers.  
Vod.i san. tekhn. no.10:21-22 O '62. (MIRA 15:12)  
(Water-Purification)

KAGAN-LUZGINA, M.I.

[Work hygiene in the building materials industry; practical information of health service work] Gigiena truda v promyshlennosti stroitel'nykh materialov; metodicheskie materialy dlia sanitarnoprovizitel'noy raboty. Moskva, 1956. 78 p.  
(MLRA 10:3)  
(BUILDING MATERIALS INDUSTRY--HYGIENIC ASPECTS)

KAGANAS, M. A.: Master Tech Sci (diss) -- "Reinforced-concrete and concrete designs and parts prepared under winter conditions, by the method of thermal activation of settling with internal camels". Kaunas, 1959. 22 pp, 150 copies  
(KL, No 5, 1959, 1<sup>st</sup>9)

KAGANE, G.

RUMIA/General Problems of Pathology - Tumors. Human Tumors. U.  
Abstr Jour : Ref Zhar - Biol., No 2, 1959, 889  
Author : Nestase, G., Speranție, G., Karmil, N., Lesser, M.,  
Engau G., Mărușescu, D.  
Inst : ~~W~~  
Title : Research on Certain Serum Anti-Hyaluronicidase in Skin  
Cancer.  
Ori; Pub : Ruman. med. obștești, 1957, 1, No 2, 61-66  
Abstract : No abstract.

Card 1/1

- 51 -

185100

33809  
S/137/62/000/001/077/237  
A060/A101

AUTHORS: Kagane, L. Ya., Barsukov, V. V.

TITLE: Production of sheet cast-iron

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 4, abstract 1D19  
(V sb. "Polucheniye izdeliy iz zhidk. met. s uskoren. kristalli-  
zatsiyey". Moskva-Kiyev, Mashgiz, 1961, 164 - 168)

TEXT: Crude iron sheet 0.7 - 1.5 mm thick obtained by forming from molten metal, possesses after rolling satisfactory mechanical characteristics ( $\sigma_b$  30 - 32 kg/mm<sup>2</sup>,  $\delta$  8 - 10%) and may be utilized in machine construction and also for a number of articles of domestic use instead of steel sheet. The TsKTB has worked out the technological processes, the designs of installations, and the technological schedules for crude iron sheet production. Some variants of the organization of crude-iron sheet production are cited. In the production of crude-iron sheet amounting to 25,000 tons per annum, the molten metal at 1,420°C is obtained from a cupola-furnace with productivity of 8 tons per hour. The molten metal is held-over in the ladle to reduce non-metallic impurities. At a temperature of 1,260 - 1,280°C the pouring of the metal in crystallizer rolls begins. The

Card 1/2

33809  
S/137/62/000/001/077/237  
AO50/A101

Production of sheet cast-iron

strip being formed is cut by rotating cutters into separate sheets which are stacked into stacks. Five-ton stacks are supplied for heat-treatment - graphitizing annealing. Then the crude-iron sheets undergo trimming and are directed to a cam press for the stamping of articles. Variants for the production of reduced crude-iron sheet with improved mechanical characteristics and for the manufacture of crude-iron sheet in rolls are also worked out. There are considerable prospects for the mastery of production of sheet from molten steel. X

G. Grigoryan

[Abstracter's note: Complete translation.]

Card 2/2

KHOMYAKOV, A. M.; GAVRILOV, V. I.; GIVYOLINA, V. V.; FAZAI, M. I.; KALINOV, S. M.; KEL'DMAN, Kh. I.; LAKHIN, V. K.; KAGANOV, A. I.; KOGANOV, L. M.; LUCHAKOV, I.

Brief information. Sov.med. 26 no.4:145-147 Ap 1954

(MERA 1846)

1. Fakulteteskaya khirurgicheskaya klinika Gruzinskogo meditsinskogo instituta (for Khomyakov, Gavrilov, V. V., Givyolina, V. V., Fazai, M. I., Kaganov, A. I., Koganov, L. M., Luchakov, I.).
2. Khustskaya rayonnaya bol'ница Filatovskoy kliniki (for Filatov).
3. Borovaya bol'ница v. Krasnoyarska (for Krasnov).
4. Klinika khirurgii detskoj vozrastnoj Klyuchevskogo meditsinskogo instituta (for Kel'dman).
5. Gospitalskaya bol'ница beruvenicheskaya klinika i klinika otorinolaryologicheskogo bol'znya Gruzinskogo meditsinskogo instituta (for Gavrilov).
6. Sentral'naya klinicheskaya bol'ница (for Kaganov).
7. Khirurgicheskoye otdeleniye TSentral'noy klinicheskoy bol'ницы imeni Semashko Ministerstva putey soobshcheniya (for Gavrilov).
8. Kafedra organizatsii zdorov'ya i istorii meditsiny Faratovskogo meditsinskogo instituta (for Luchakov).

RYABKOVA, Ye.G.; KAGANER, A.I.; SELIVANOVA, I.G.

Primary clinical manifestations of lesions of the nervous system  
in rheumatic fever. Vop. psikh. nevr. no.10:50-55 '64.  
(MIRA 18:12)

1. Kafedra nervnykh bolezney (nachal'nik - prof. A.G. Panov)  
Voyenno-meditsinskoy ordona Lenina akademii imeni S.M. Kirova i  
Leningradskaya oblastnaya klinicheskaya bol'ница (glavnyy  
vrach - V.N. Sukhobskiy).

KAGANER, P.

They increase their knowledge in this way. Prof.-tekhn.obr. 13 no.9:28  
8 '56. (MIRA 9:10)

1. Zamestitel' direktora po uchebno-prizvodstvennoy chasti.  
(Farm mechanization--Study and teaching)

KAGANER, F.

For academic instruction. Prof.-tekhn. obr. 17 no.5:24  
Mv '60. (MIRA 13:7)

1. Zamestitel' direktora remeslennogo uchilishcha po  
mekhanizatsii sel'skogo khozyaystva No.13 (g. Nezhin).  
(Farm mechanization--Audio-visual aids)

S/065/62/000/011/001/006  
E075/E436

AUTHORS: Pal'chikov, G.F., Mezhlumova, A.I., Krichko, A.A.,  
Kaganer, G.S., Stepuro, S.I., Brovenko, A.V.

TITLE: Extraction of aromatic hydrocarbons from middle  
petroleum fractions and catalytic gas oils with  
aqueous pyridine

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.11, 1962,  
19-25

TEXT: Following the laboratory work reported previously  
(Khim. i tekhnol. topliv i masel, no.4, 1961) trial batches of  
aromatic extracts (400 to 500 kg) were obtained on a pilot plant  
scale from a catalytic gas oil and kerosene - gas oil fractions  
from Anastasiyevka crude. The extraction was carried out using  
aqueous solution of technical pyridine (boiling point range  
114 to 134°C). The feed saturated with pyridine vapour meets  
the pyridine solution in the extractor. Countercurrent  
extraction takes place, the raffinate and the extract solutions  
leaving the opposite ends of the extractor. For the extraction  
of the kerosene - gas oil fraction the raffinate contained 30% by  
Card 1/2

Extraction of aromatic ...

S/065/62/000/011/001/006  
E075/E436

volume of pyridine (water free) and the extract solution - 80.7% pyridine, 10% water and 9.3% extract. The extraction was conducted at 15°C. The extract constituted 32 to 35% of the feed and contained about 80% aromatic hydrocarbons. The extract with 50% of the aromatic hydrocarbons was obtained with the yield of 70%. The extracts were subjected to high temperature hydrogenation. For the extract from the catalytic gas oils the yield of naphthalene obtained by the hydrogenation was 30%. For the kerosene - gas oil fraction about 20% yield of naphthalene was obtained and 40% of a solvent containing 95% of aromatic hydrocarbons. There are 1 figure and 7 tables.

ASSOCIATION: SNKh Checheno-Ingushsk. ASSR

Card 2/2

L 30247-66 FWT(m)/T WE  
ACC NR: AP6013820 (A)

SOURCE CODE: UR/0318/65/000/012/0003/0005

AUTHOR: Pal'chikov, G. F.; Mezhlumova, A. I.; Kaganer, G. S.; Stepuro, S. I.; 42  
Krichko, A. A.; Titova, T. A. 38

ORG: Grozneftekhimzavody Association (Ob'yedineniye Grozneftekhimzavody); Institute of Mineral Fuels, AN SSSR (Institut goryuchikh iskopayemykh, AN SSSR) B

TITLE: Processing of catalytic gas oils by extraction with pyridine and hydrogenation

SOURCE: Neftepererabotka i neftekhimiya, no. 12, 1965, 3-5

TOPIC TAGS: pyridine, solvent extraction, gas oil fraction, hydrogenation, naphthalene, petroleum product, gasoline

ABSTRACT: The paper describes the results of an extractive separation of catalytic gas oils from low-sulfur and sulfur feed stock by means of wet pyridine and the results of the hydrogenation of the extracts. The extractive separation of the gas oils was carried out in a continuous unit with a vertical countercurrent extractor provided with a pulsed packing of perforated metal discs. The output of the unit was 1 liter/hr. The degree of separation of aromatic hydrocarbons from gas oil was 70-75%; for bicyclic hydrocarbons, 95%. The extract from the low-sulfur gas oil was used directly as the feed stock for the hydrogenation. It is concluded that catalytic gas oils produced by refineries in the southern and eastern regions of the Soviet Union can be

UDC: 665.5.521.4.66.061.5

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CA

The distribution of pores according to size in porous bodies. I. P. Ishkin and M. O. Kalaner (Inst. Oxygen Mech. Eng., Moscow). *Zhur. PNT. Khim.* 20, 943-95 (1960).—The conditions for motion of 2 systems (more or less insol. liquids or gas and liquid) through a porous medium were established. The system gas/liquid was studied experimentally and theoretically. The method for determining the distribution of pores according to size in porous bodies was improved; the pressure and rate of flow of gas through a porous body immersed in a liquid were measured. The method was useful for the construction of the structural curves for cemented porous bodies with a pore radius of from 10 to several hundred microns. The distribution according to size agrees with the Maxwell distribution equation.

Paul W. Howerton

KAGANOV, N. G. (EKG)

Dissertation: "Investigation of the Thermodynamic Properties of Air and Nitrogen at Low Temperatures and High Pressures." Cand Tech Sci, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov, 4 Jun 54. Vechernyaya Moskva, Moscow, 26 May 54.

SO: SUM 284, 26 Nov 1954

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1562  
AUTHOR ISKIN, I. P., KAGANER, M.G.  
TITLE The Investigation of the Thermodynamic Properties of Air and  
Nitrogen at Low Temperatures under Pressure.  
I. The Determination of the Isothermal Throttle Effect of Air  
and Nitrogen.  
PERIODICAL Zurn.techn.fis, 26, fasc. 10, 2329-2337 (1956)  
Issued: 11 / 1956

The present work aims at determining experimental data concerning these thermodynamic properties and the construction of new and accurate state diagrams of these gases with the help of the isothermal throttle effect. On this occasion the lateral heat transfer of the gas to the surrounding medium is practically fully eliminated and at a low gas consumption and a smaller apparatus greater accuracy is obtained, and, besides, computation of enthalpy is made easier.

At first the experimental order is described. Together with the determination of temperature in the kryostat, the flow of the gas to be investigated is sent through the calorimeter. Pressure and gas consumption as well as pressure drop were controlled by means of regulating valves (at the in- and output of the calorimeter), and by means of a throttle valve.

Experimental results are shown in tables. The isothermal throttle effect of air and nitrogen was measured within the temperature range of from +30° to - 185° C and at pressures of from 1,5 to 50 atm. According to experimental data the iso-

V. The dimension effect and the extension of state of stress  
with respect to the effect of applying changes due to the  
thermal excursion, characterized the behavior of materials  
better than did their other experimentally determined properties. The accuracy of several well-known equations of state of  
gas (van der Waals, Berthelot, Dieterici, Beattie-Bridgeman, Vankarsch, and Moulton) are evaluated and the  
accuracy of the equations is compared in the equation of state of

KAGANER, M. G.

AUTHOR: Kaganer, M.G.

120-5-34/35

TITLE: On the Measurement of Vacuum Using a Resistance Manometer  
(Pirani Gauge-transl.) Ob izmerenii vakuuma manometrom  
soprotivleniya

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.5,  
pp. 124-125 (USSR).

ABSTRACT: Resistance manometers are usually used in the region 1 to  $10^{-3}$  mmHg (Refs. 1 and 2). At lower pressures ionization manometers with hot and cold cathodes are used more frequently. In many cases, particularly in laboratory practice, the emission and absorption of gases in the system cannot be allowed. For this reason, the resistance manometer is sometimes used down to  $10^{-5}$  mmHg (Refs. 1, 3 and 4). Measurements are carried out by a bridge scheme using three different methods. In some work on adsorption at low pressures, the author used the resistance manometer together with a potentiometric scheme to measure pressures (Fig.1). The manometer 6 consists of a glass cylinder 32 mm in diameter, containing a platinum thread 0.07 mm in dia., having a resistance of  $13.5 \Omega$  at  $0^\circ\text{C}$ . The potential difference between the ends of the thread is measured by the potentiometer 1. The constancy of the working current is maintained by means of two resistance boxes 4, connected in parallel and is

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120-5-34/35

## On the Measurement of Vacuum Using a Resistance Manometer.

The small deviations of the points from the calibration curve are to a large extent due to errors of the compression manometer. The linear dependence of the resistance of the thread on pressure is observed only below  $5 \times 10^{-4}$  mmHg. In this region, the sensitivity of the scheme is about 0.06 mV or 24 divisions

of the galvanometer per  $10^{-5}$  mmHg. The sensitivity can be increased by using a low resistance potentiometer instead of a high resistance one. A comparison of the calibrations at  $25^{\circ}\text{C}$  and  $30^{\circ}\text{C}$  shows that the difference of the thread resistances gradually increased from  $0.17 \Omega$  at  $10^{-5}$  to  $0.22 \Omega$  at 1 mmHg, while the absolute magnitude of resistance decreases to one-third. The magnitude of the ratio  $\Delta R_T/R$  does not appear

to be constant and hence the use of a compensator does not lead to such reliable results as the thermostatting of the manometer. As a result of measurements at liquid nitrogen temperatures, it was found that if the temperature of the walls is lowered from  $25^{\circ}\text{C}$  to  $-196^{\circ}\text{C}$ , the sensitivity increases to 0.18 mV per

$10^{-5}$  mmHg in a high vacuum. This corresponds to an increase in the sensitivity of the manometer:

$$\left( \frac{1}{R_0} \cdot \frac{dR}{dP} \right)$$

Card 3/4

KAGANER, M.G., kand. tekhn. nauk; ROGOVAYA, I.A., kand. tekhn. nauk.

Determining the amount of gas in bottles. Kislorod 10 no.3:22-24  
'57. (MIRA 10:11)  
(Gases, Compressed)

AUTHOR: Kaganer, M. G.

20-2-25/50

TITLE: A Method for Determining the Specific Surface From the Adsorption of Gases in the Monomolecular Region (Metod raspredeleniya udel'noy poverkhnosti po adsorbtsii gazov v monomolekulyarnoy oblasti)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 251 - 254 (USSR)

ABSTRACT: The author first maintains that the methods hitherto employed for this purpose result in unreliable values in the case of finely porous adsorbents, especially in the case of many active coals. A new method, which is independent of methods hitherto employed, can be based upon measurements carried out in the domain of monomolecular adsorption. The author determined the adsorption of nitrogen (at 77,4°K and  $p/p_0$  from  $1.10^{-8}$  to 0,5) by means of samples of silica gel and aluminum oxide by the volume method. At pressures of less than  $1.10^{-3}$  mm torr equilibrium was attained after 15 to 25 hours. The isotherms of adsorption are shown in form of a diagram. At low values of the degree of covering of the surface  $\Theta$  the inhomogeneity of the surface exercises considerable influence on the shape of isotherms. The most active points are usually covered at

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20-2-25/50

A Method for Determining the Specific Surface From the Adsorption of Gases in the Monomolecular Region

low values of  $p/p_s$ . If  $\Theta$  is of the order of some tenths, only the relatively homogeneous areals of the surface remain uncovered. This is also indicated by the approximately constant adsorption heat. Measurements in this domain of monomolecular adsorption ( $\Theta > 0,2 - 0,3$ ) are suited for determining the surface. The study of the experimental data concerning adsorption in the case of small  $\Theta$ , which were found here and elsewhere, led the author to the conclusion that in the domain concerned all adsorbents satisfy an equation mentioned here. The deviations of experimental points from the straight line at high values of  $p/p_s$  increase with an increase of the size of the pores of the adsorbent. The here discussed deliberations of the author are fully confirmed by the experimental data concerning the adsorption of nitrogen at low pressures found by him and by other authors. A diagram shows the isotherms of the adsorption of nitrogen at 77 - 78° K by 8 different adsorbents. Filling up of the second and of the following layers probably begin after the first layer has been filled up to from 75 to 90%. The values of the specific surface obtained by various methods are compared in a table. The equation by M. M. Dubinin and L. V. Radushkevich (ref. 4) describes the adsorption of nitrogen on various

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SOV/67-59-6-3/22

5(1)

AUTHORS:

Miroslavskaya, Yu. A., Engineer, Kaganer, M. G., Candidate  
of Technical Sciences, Glebova, L. I., Engineer

TITLE:

Gasifier of Liquid Oxygen With Vacuum Insulation (Gazifikator  
zhidkogo kisloroda s vakuumnoy izolyatsiyey)

PERIODICAL:

Kislorod, 1958, Nr 6, pp 8 - 15 (USSR)

ABSTRACT:

The gasifier mentioned mainly consists of two concentric balloons and a vacuum between them. The inner balloon has a capacity of 28 l. A funnel leads to it, with a tube for the supply of liquid oxygen, which also serves the purpose of discharging the surplus vapor, and a U-shaped feed tube for vaporous oxygen from the receivers for the first production of overpressure. The inner liquid oxygen feed tube also serves the purpose of discharging the oxygen into the vaporizer. An absorbing device is fastened to the outer wall of the inner balloon to absorb any oxygen that might leak through tiny cracks or pores. The whole device and the inner balloon separately were checked by means of a leakage detecting instrument of the PTI-4A type. More leakage was found to come from the inner container, which made the application of an

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Gasifier of Liquid Oxygen With Vacuum Insulation

SCV/67-58-6-3/22

absorber necessary. Investigations were carried out of the effectiveness of several absorbing materials depending on temperature and pressure, and silica gel KSM (GOST 3956-54) proved to be the most suitable. A thermal calculation was carried out of the whole device. The entire heat conductivity of the device  $Q$  leading to an additional vaporization of the liquid oxygen in the inner balloon, consists of:

$Q_1$  of the heat conductivity of residual gases in the vacuum; this was calculated according to reference 6 taking into account the device to be  $Q_1 = 0.19$  kcal/hour, from  $Q'_2$  and  $Q''_2$ ,

the heat conductivity of the metallic parts of the balloon and of the outer parts of the supply funnel.

$Q''_2$  was calculated to be 0.77 kcal/hour.

$Q'_2$  for the discharge and supply tube of liquid oxygen was calculated according to Egg's formula (Ref 7);  $Q'_2 = 0.34$  kcal/hour;

$Q_3$  the heat radiation from the outer to the inner balloon

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Gasifier of Liquid Oxygen With Vacuum Insulation

SOV/67-59-6-3/22

through the funnel 3.56 kcal/hour.  
 $Q = Q_1 + Q_2' + Q_2'' + Q_3$  averages 4.62 kcal/hour within the temperature range of +20° and -5°.

Practical experience has shown that 80-100 g of liquid oxygen vaporize, corresponding to a heat flow of 4.1-5.1 kcal/hour, which is in good agreement with the calculated value of 4.62 kcal/hour. It was found that heat radiation is the main cause of losses. There are 9 figures, 2 tables, and 8 references, 6 of which are Soviet. The gasifier was constructed by VNIKIMASR and has already been introduced in production.

Card 3/3

AUTHORS: Kaganer, M. G., Petrovskiy, Yu. V., SOV/67-11-5-15/16  
Afanas'yev, S. G., Candidates of Technical Sciences,  
Trokhin, A. A., Engineer

TITLE: From Foreign Journals (Po stranitsem zhurnalov)

PERIODICAL: Kislorod, 1958, Vol 11, Nr 5, pp 59-64 (USSR)

ABSTRACT: Under this title brief abstracts of articles published in foreign journals are presented. There are 14 articles dealing with the oxygen industry and its border fields, 9 American, 1 English, 1 German, 2 French and 1 Polish article. There are 3 figures.

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